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An investigation of cognitive-behavioral interventions for the treatment of bulimia nervosa in women

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An investigation of cognitive-behavioral interventions for the treatment of bulimia nervosa in women

Abstract

The first and foremost aim of this investigation is to review the professional literature related to the successes of cognitive-behavioral therapy (CBT) for women diagnosed with bulimia nervosa (BN). The second purpose of the paper is to compare CBT treatments with other treatments which have also been shown to be successful. The third aim of this study is to determine whether CBT should be the treatment of choice for women with BN.

AN INVESTIGATION OF COGNITIVE-BEHAVIORAL INTERVENTIONS
FOR THE TREATMENT OF BULIMIA NERVOSA IN WOMEN

A Research Paper

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of the Requirements for the Degree
Master of Arts

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Adrienne E. Reed
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Bulimia nervosa (BN) is a significant source of morbidity among young women. This eating disorder has two main facets. First, eating habits are highly disturbed. More specifically, there are recurrent episodes of gross overeating, that accompanied by various forms of behavior that are intended to control body shape and weight. The most common of these include extreme dieting, self-induced vomiting, and the misuse of laxatives. Second, attitudes about shape and weight are highly disturbed, sometimes referred to as a "morbid fear of fatness" (Fairburn et al., 1991, p. 463). In addition, there is often a high level of general psychiatric disturbance, with depressive symptoms being particularly prominent. Social adjustment may also be impaired (Fairburn & Cooper, 1984; Fairburn & Garner, 1986; Russell, 1979). There has much investigation on the treatment of BN since it was first described in 1979 (Fairburn, Norman, Welch, O'Connor, Doll, & Peveler, 1995). Since then, BN has become a wide-spread clinical problem, affecting mostly women in their teens and twenties (Martin, 1990).

Four interventions have shown particular promise: (a) cognitive-behavioral therapy (CBT); (b) behavioral therapy (BT, behavioral version of CBT); (c) antidepressant drug treatment; and (d) interpersonal psychotherapy (IPT, form of short-term focal psychotherapy). Various research findings suggest that the intervention of choice is CBT, with most women benefiting significantly and reductions in disturbed eating habits and attitudes being well-maintained following treatment (Fairburn & Hay, 1992).

However, Fairburn et al. (1992) believed CBT was neither necessary nor sufficient for all individuals with BN. In addition, these researchers suggested that some women benefited from simpler interventions while others failed to

respond. Presently, little is known about the factors that predict response to specific forms of treatment, which precludes the matching of clients with specific treatments. Although CBT has been labeled the intervention of choice for BN, the reported results of the intervention are contradictory. Therefore, one question still remains- how successful are the reported positive studies of CBT interventions?

The first and foremost aim of this investigation is to review the professional literature related to the successes of CBT modalities for women diagnosed with BN. The second purpose of the paper is to compare CBT treatments with other treatments which have also been shown to be successful (Cooper & Steere, 1995; Jones, Peveler, Hope, & Fairburn, 1993; Leitenberg, Rosen, Wolf, Vara, Detzer, & Srebnik, 1994; Wilson, Eldredge, Smith, & Niles, 1991). The third aim of this study is to determine whether CBT should be the treatment of choice for women with BN.

History of Bulimia Nervosa and its Current Status

The first formal descriptions of Bulimia Nervosa were introduced by Russell in 1979 and by the American Psychiatric Association (APA) in 1980. Both of these descriptions were pessimistic about the long-term effects of BN. For instance, Russell (1979) described BN as intractable and an ominous variant of anorexia nervosa. According to APA (1980), the course of BN was said to be chronic and intermittent over a period of many years. Since that time, opinions have been divided about the definitions of BN. For example, Keller and colleagues (1992) described the disorder as having high rates of chronicity, relapse, recurrence, and psychosocial morbidity.

Definition of Bulimia Nervosa

Previous research has either used subjects who met the diagnostic criteria for BN that resembled those of Russell (1979) or Fairburn (1985). Russell's criteria require that both behavior designed to control body weight and the characteristic concerns about shape and weight must be present. His criteria includes preoccupations with food, irresistible cravings for food, and repeated episodes of overeating; devices aimed at counteraction the fattening effects of food; a psychopathology resembling that of classical anorexia nervosa; and a previous overt or cryptic episode of anorexia nervosa. Fairburn's criteria require that disturbed attitudes about shape and weight must be present, which he considers to be the core psychopathology of BN. Both have added that preoccupation with body weight and shape is one of the defining criteria of the disorder. According to these investigators, BN may be seen as a specific subtype of the less precise definition of bulimia found in the Diagnostic and Statistical Manual of Mental Disorders, 3rd Edition (DSM-III)(APA, 1980). Researchers have also used criteria based on the Diagnostic and Statistical Manual of Mental Disorders, 3rd Edition Revised (DSM-III-R)(APA, 1987) as well as the Diagnostic and Statistical Manual of Mental Disorders, 4th Edition (DSM-IV) (APA, 1994).

The DSM-III-R (APA, 1987) criteria for BN include: recurrent episodes of binge eating (rapid consumption of a large amount of food in a short period of time); a feeling of lack of control over eating behavior during the eating binges; regularly engaging in either self-induced vomiting, use of laxatives or diuretics, strict dieting or fasting, or vigorously exercising in order to prevent weight gain;

averaging a minimum of two binge eating episodes a week for at least three months; and a persistent overconcern with body shape and weight.

The DSM-IV (APA, 1994) criteria for BN include: the presence of recurrent (at least two times per week for the previous three months) binge eating; behaviors to compensate for caloric intake; and self-evaluation overly influenced by body image and weight. In addition, the diagnostic criteria in this volume include two subtypes of BN differentiated on the basis of the type of compensatory behavior being exhibited by purging and nonpurging. The purging-type is characterized by using self-induced vomiting, use of laxatives, diuretics or enemas, and the nonpurging-type is characterized by using fasting with or without exercise as the primary method to compensate for caloric intake. In more recent studies (Cooper & Fairburn, 1994; Thackwray, Smith, Bodfish, & Meyers, 1993; Waller, 1997), investigators most often adhere to the criteria in both the DSM-III-R (APA, 1987) and DSM-IV (APA, 1994) because they share similar criteria.

Prevalence and Demographics

Fairburn and Beglin (1991) and Hsu (1990) reported that the prevalence of BN among women was estimated to be roughly 1 to 3 percent. These estimates were also reported by APA (1994) and Johnson, Tsoh, and Varnado (1996). As previously mentioned, the disorder is becoming increasingly wide-spread. However, research on the prevalence of BN in some countries has been limited (APA, 1994).

In considering the incidence of BN across cultures, BN has been reported to occur more often in industrialized countries. These include the United States (U.S.), Canada, Europe, Australia, Japan, New Zealand, and South Africa.

Studies conducted in the U.S. have shown that people presenting with BN are primarily white, but the disorder occurs among other ethnic groups (APA, 1994). As mentioned previously, more recent investigations included women who met the diagnostic criteria for BN based on the DSM-III-R and the DSM-IV. However, in those investigations, no specific information was given regarding the subjects' cultural background.

In regard to gender, at least 90% of those with BN are female. Fairburn et al. (1991) noted that BN rarely occurs in males. However, APA (1994) suggested that males who do suffer with BN have a higher prevalence of premorbid obesity than do females with BN.

In regard to age, it has been reported that the symptoms of BN typically develop in late adolescence or early adulthood (APA, 1994). Frequently, binge eating begins during or after an episode of dieting. These eating patterns persist for at least several years in a high percentage of those diagnosed with BN.

Interventions for the Treatment of Bulimia Nervosa

As previously mentioned, four interventions have shown particular promise in the treatment of BN. Those interventions are (a) cognitive-behavioral therapy (CBT); (b) behavioral therapy (BT, behavioral version of CBT); (c) antidepressant drug treatment; and (d) interpersonal psychotherapy (IPT, form of short-term focal psychotherapy). In this section of the paper, a brief description of each intervention will be discussed.

Cognitive-Behavioral Therapy (CBT)

This intervention is based on a cognitive view of bulimia nervosa, which proposes that the characteristic attitudes about shape and weight are of primary

importance in the maintenance of the disorder. The intervention uses a combination of cognitive and behavioral techniques to change individuals' attitudes about shape, weight, and behavior. When relevant, other cognitive distortions are challenged, especially low self-esteem and extreme perfectionism (Fairburn, Cooper, & Cooper, 1986; Fairburn, Jones, Peveler, Hope, & O'Connor, 1993).

Behavioral Therapy (BT)

This intervention is a simplified version of CBT. It consists solely of the behavioral techniques from the full intervention, excluding those directed at individuals' preoccupations about shape and weight. Therefore, the focus is exclusively on the normalization of eating habits. In BT, emphasis is placed on regaining control over eating, establishing regular eating patterns, and ultimately, cessation of dieting. Cessation of dieting is most important, since dietary restraint is thought to promote overeating among individuals with BN (Fairburn et al., 1993).

Antidepressant Drug Treatment

This intervention is based on the notion that BN is a variant of depression (Hudson, Pope, Yurgelun-Todd, Jonas, & Frankenburg, 1987). Many types of drugs have been evaluated for BN, and the consensus was that antidepressants were the most effective and safe. In general, most antidepressants appear to reduce binge eating and self-induced vomiting. Selective Serotonin Reuptake Inhibitors (SSRIs) now appear to be the most commonly prescribed antidepressant for BN. Examples of popular SSRIs include fluoxetine, paroxetine, and sertraline.

These antidepressants are well known for their modest side-effect profile and effectiveness in the treatment of depression (Johnson et al., 1996).

Interpersonal Psychotherapy (IPT)

This intervention is a specific form of short-term psychotherapy. It was designed for the treatment of depressed outpatients and is based on an interpersonal view of the maintenance of depression. Although IPT utilizes psychodynamically oriented techniques, it focuses on the patient's current interpersonal functioning. The intervention was modified to suit patients with BN. Similar to the treatment developed for depression, IPT has three phases. In the first phase of treatment, depression is diagnosed and explained to the patient. The major interpersonal problems associated with the onset of the depression are identified, and a contract is made to work on these problems. In the second phase, these interpersonal problems are discussed. In the third phase of treatment, feelings about termination of therapy are addressed, progress is reviewed, and remaining work is outlined (Fairburn et al., 1993).

Presentation of Research Findings

Waller, Fairburn, McPherson, Kay, Lee, and Nowell (1996) developed and evaluated a simplified and condensed form of CBT for the treatment of BN. This pilot study was designed for use in primary care. Eleven women diagnosed with BN were recruited for the study based on two general medical practices in England. All were single, with a mean age of 22.2 years. Their mean weight and body mass were 61.3 kg and 22.7%, respectively. The mean frequency of binge eating, assessed by the self-report version of the Eating Disorder Examination (Fairburn & Beglin, 1995) was 14.5 episodes per 28 days. Four of the patients

had previously received treatment. The mean duration of BN was 4.4 years. CBT was then adapted by two out of the six authors, based on Fairburn, Marcus, and Wilson's (1993) cognitive-behavioral approach, to make it suitable for use in primary care. It was specified that it should involve no more than eight twenty-minute sessions at weekly intervals. The resulting treatment retained the cognitive orientation of the original treatment and behavioral and educational interventions. However, it included no formal cognitive restructuring.

The results of the pilot study indicated that the cognitive-behavioral approach to the treatment of BN can be simplified and condensed; therefore, it can be used in primary care. The results also indicated that it may benefit a significant proportion of BN cases seen in this setting. Six of the eleven patients improved substantially. Of these, four stopped binge eating altogether. Three out of five patients stopped vomiting, and the frequency of binge eating and vomiting dropped by over fifty percent in the other cases. There was marked improvement in their mood, and their concerns about shape and weight decreased. Three of these patients attended the full eight sessions. The others attended between four and six sessions with their improvement so rapid that there was no need for additional sessions.

Five patients did not benefit from the treatment. Major external events, like an unplanned pregnancy and final degree examinations, prevented two patients from committing themselves to the treatment. The other three cases were treatment failures. Of these, one was overweight and her main goal was to lose weight rather than stop binge eating. The other patients had major coexisting psychiatric problems that complicated their treatment.

In most circumstances, nearly all of the patients in this investigation would have been referred to a specialist clinic. If confirmed, the results of this study suggest would suggest that a substantial proportion of bulimic patients can be helped in primary care by nonspecialist therapists. Their findings have significant implications for the provision of treatment services: (a) many patients with BN do not need specialist treatment and (b) a stepped care approach in which simple treatments are first applied may be the most effective approach with this population (Fairburn & Peveler, 1990). Limitations include limited sample size, lack of response, and lack of long-term follow-up.

Leitenberg et al. (1994) examined the effects of CBT and antidepressant medication (desipramine). They compared three groups - one used CBT only, one used antidepressant treatment, and the third group combined the two. Subjects were recruited through newspaper advertisements and professional referrals at the University of Vermont. The twelve females included in the study were 18 to 45 years of age, within 80% to 120% of normal weight as defined by the 1983 Metropolitan Life Insurance tables, and met the DSM-III-R (1987) and Russell's criteria (1979) for BN. The Eating Disorders Examination (Cooper & Fairburn, 1987), a one hour structured interview was used to determine if the subjects met the diagnostic criteria for BN. Exclusionary criteria included a current diagnosis of bipolar disorder, schizophrenia, anorexia nervosa, cardiac or hepatic disease, pregnancy or plan for same in the next six months, abnormal electrolytes or serum glucose, chemical dependency or serious suicide risk. The subjects were also excluded if they were involved in simultaneous treatment of any kind including

antidepressant medication and if they had been previously treated for BN with CBT or desipramine.

Prior to treatment, they were very similar in their demographic backgrounds, BN history and severity, more general psychological symptoms, age, marital status, education level, and current weight. Subjects monitored their eating and purging behavior for two consecutive weeks at four points in time: pretreatment, end of treatment, posttreatment, and at six-months follow-up. Various questionnaire measures were also administered at three points in time: pretreatment, posttreatment, and at six-months follow-up. The questionnaires used were the Eating Attitudes Test (EAT)(Garner & Garfinkel, 1979), Brief Symptom Inventory (BSI)(Derogatis & Spencer, 1982), Rosenberg Self-Esteem Scale (RSE)(Rosenberg, 1979), Body Shape Questionnaire (BSQ)(Cooper, Taylor, Cooper, & Fairburn, 1987), and the Inventory to Diagnose Depression (IDD)(Zimmerman & Coryell, 1987).

Prior to treatment, the three groups were very similar in their demographic backgrounds, bulimia nervosa history and severity, and more general psychological symptoms. They did not significantly differ on such demographic variables as age (mean was 26.7 years for the full sample), marital status, education level, or current weight. There also was no significant difference on duration of disorder (mean of 83.48 months for the full sample) or number of binge-purge episodes per week recorded during pretreatment (mean vomiting episodes per week for the full sample was 8.5). There was no significant difference on any of the six different questionnaire measures on which the groups could be compared at pretreatment.

At the end of the first treatment session, subjects completed a single item credibility questionnaire. They were instructed to fill this out confidentially and return it to the research assistant in a preaddressed envelope. The question asked "how much do you think this treatment will help you?" The subjects responded on a 7-point scale (1="very little" to 7="very much"). The mean credibility ratings were 6.45, 4.75, and 5.50 respectively for the CBT alone condition, the desipramine alone condition, and the combined condition. These ratings were not significantly different.

The mean number of purge episodes per week for each subject in each condition at each assessment phase were described. Because the total number of subjects per group was small, data for each individual subject as well as group means were described. Perhaps the most striking result was the high proportion of drop-outs in the desipramine group. Four out of seven subjects initially assigned to the desipramine alone condition dropped out of the study compared to only one in the CBT alone condition. None of the four drop-outs had reported improvement in bulimia symptoms and each wanted to discontinue medication because of negative side effects and because they really wanted something more *than just medication. In the combined condition there were also two dropouts* because of medication complaints.

Five out of the six subjects who completed the CBT condition had stopped vomiting by the last two weeks of treatment and the remaining subject who completed treatment in this condition only vomited once in two weeks. By contrast none of the three subjects who completed the trial with desipramine stopped vomiting completely and only one showed any substantial decline. After

medication was discontinued, however, this patient was still vomiting at a rate of three to four times per week. In the combined condition four out of the five subjects who completed treatment had stopped vomiting by the end of treatment, with the remaining subject showing no benefit. After medication was withdrawn two of the subjects who had stopped vomiting rebounded slightly, one vomiting once per week and the other two times per week.

Results were generally maintained at the six-month follow-up. In the CBT group four of the subjects did not vomit at all. The remaining two subjects showed more of a relapse in that one vomited twice per week and the other vomited three to four times per week (in pretreatment, however, this subject had vomited nineteen to twenty times per week). In the combined group two subjects were still not vomiting, one vomited only once in two weeks, and two showed signs of relapse, vomiting two to three times and five to six times respectively per week. The three subjects who completed the drug alone condition vomited twelve to thirteen, four, and five times per week respectively during follow-up. The investigators noted that all three of these subjects obtained additional treatment of various sorts during the follow-up period. One subject in the CBT alone condition and one subject in the combined condition also sought further treatment during the follow-up period.

The questionnaire measures yielded similar results. The mean scores for the subjects in each group who completed treatment were described. On every measure the CBT group showed significant improvement from pretreatment to the end of treatment. These gains were sustained at six months follow-up with the exception of the BSI where the P value was only 0.07. By contrast the means for

the three subjects who completed the desipramine alone treatment were not significantly different at the end of treatment or at follow-up from the means at pretreatment, except for depression. The questionnaire results for the combined group were more similar to that of the CBT group than to the desipramine alone group in that all measures showed a significant reduction from pretreatment to the end of treatment. However, at follow-up the depression and self-esteem scores were no longer significantly different from pretreatment.

The investigators of this study believe the effectiveness of each condition can be judged not only by the results obtained from subjects who completed treatment but also by the percentage of those who refused a particular treatment or dropped-out without apparent benefit. When these are considered together the results suggest that CBT alone is more effective than desipramine alone, at least as they were administered in the present study. Furthermore, they believe combining these two forms of treatment did not improve the results obtained with CBT alone.

One limitation found within their study was the small number of subjects assigned to each condition. Another limitation was the differential drop-out rate which deserves special attention. Clearly there was a lot of resistance to the use of drugs in both the desipramine alone group and the combined group. The investigators argued that the way desipramine was administered in their study was not the way drug treatment is typically prescribed in a psychiatric setting and that is why the results were so poor. In order to examine the "pure" treatment effects of the drug, no psychotherapy of any kind accompanied the drug treatment in the desipramine alone condition. They also argued that the constraints of research

limited the administration of CBT so that it too was not conducted in a typical or optimal way. Furthermore, rigidly attempting to follow a treatment manual for a fixed number of sessions is not the way most clinicians function in actual practice.

Wilson et al. (1991) compared CBT with and without exposure and response prevention (ERP) in the treatment of BN participants. Their purpose was to evaluate the utility of adding ERP to CBT to overcome some of the limitations found in previous studies. ERP was developed by Rosen and Leitenberg (1982) as a behavioral technique for the treatment of BN based on their anxiety model of the disorder. These investigators believed that bingeing elicits anxiety and purging reduces it. Furthermore, once an individual has learned that vomiting following food intake leads to anxiety reduction, rational fears no longer inhibit overeating. Thus, the driving force of this disorder may be purging, not bingeing. The primary aim of this treatment is to prevent vomiting in response to exposure to the binge-eating that typically elicits it. Although the technique has been implemented in different ways (Wilson, 1988), the common factor is that the client is requested to bring to each session her characteristic binge foods, and then, consume them to the point to which she would typically induce purging. With the guidance of the therapist, the client is encouraged not to purge but to cope with the anxiety and learn that it will gradually extinguish over the remainder of the session.

Participants chosen for the study met the following criteria: the DSM-III-R criteria for BN, weigh within 15% of the range for medium frame for their height on the 1983 Metropolitan Life Insurance Norms, suffered from BN for a minimum of 12 months, were not in any form of treatment for eating disorders,

and consented to a medical examination and blood tests. The total number of participants chosen was not given, however, demographic information was described. The mean age of the participants in the CBT treatment was 19.8 years, and 21.6 years for those in the CBT/ERP treatment. Fourteen were college students. Physical examinations revealed no occurrence of medical problems or abnormal blood chemistry. Measures in this specific investigation were: the Eating Disorder Examination (EDE)(Cooper et al., 1987), a semi-structured clinical interview, a physician's balance beam scale (used for weighing), the Beck Depression Inventory (BDI)(Beck, Ward, Mendelson, Mock, & Erbaugh, 1961), the Symptom Checklist 90 (SCL-90)(Derogatis, 1977), Eating Self-Efficacy Questionnaire (ESQ)(Glynn & Ruderman, 1982), the RSE (1979), and the Social Adjustment Scale (SAS)(Weissman & Bothwell, 1976). Five four-point scales were used to assess the credibility of treatment for the participants. They were randomly assigned to a 20-minute session treatment program of either CBT or CBT plus ERT over a 20 week period, on the same schedule recommended by Fairburn (1985). The number of participants assigned to each program was not given.

The results indicated that adding ERP to CBT neither enhanced nor undermined the effectiveness of CBT. The data was consistent with a variety of other measures which indicated no difference between CBT plus ERP and CBT alone. These investigators noted their findings along with other negative results (Agras, Schneider, Arnow, Raeburn, & Telch, 1989) and other equivalent results (Leitenberg, Rosen, Gross, Nudelman, & Vara, 1988). Those results lead them to support Agras et al.'s recommendation that ERP should not be routinely added to

CBT. This study had four weaknesses: (a) a small number of participants; (b) the total number of participants as well as the number assigned to each treatment were not discussed; (c) a limited discussion of the participants' demographic background; and (d) the use of too many measures, which may have contributed to the number of subjects who dropped-out. These authors noted that the drop-outs did not differ from the those who completed treatment on measures of specific eating disorder psychopathology or more general psychopathology at pretreatment.

Cooper et al. (1995) designed a study to compare CBT (which includes cognitive restructuring in the absence of explicit exposure instructions) with a behavioral treatment that uses ERP in the absence of cognitive restructuring. The sample consisted of 27 women who had met the DSM-III-R (1987) criteria for BN. The following measures of specific and associated psychopathology were used. In regard to specific psychopathology, the measures used were: a standardized interview, the EDE (Cooper et al., 1987), the EAT (Garner et al., 1979), the BSQ (Cooper et al., 1987), and the Three Factor Eating Questionnaire (SRQ)(Stunkard & Messick, 1986). Measures used for non-specific psychopathology were: the Present State Examination (PSE)(Wing, Cooper, & Sartorius, 1974), the Montgomery and Asberg Depression Rating Scale (MADRS)(Montgomery & Asberg, 1979), the BDI (1961), the Spielberger State-Trait Anxiety Inventory (STAI)(Spielberger, Gorsuch, & Lushene, 1970) and RSE (1965). Suitability and expectancy (attitudes toward treatment programs) were measured using two 10 centimeter visual analogue scales. One of these assessed the degree to which patients believed that the treatment, as described to them by

the therapist, would suit their needs. The other assessed the level of their expectations that the treatment would be successful in helping them to overcome the disorder. The patients were assessed on four occasions: before treatment, midway through treatment, at the end of treatment, and at 12-month follow-up. Measures during pretreatment and posttreatment included all of those listed above. The mid-treatment assessment comprised administration of the BSQ, BDI, and STAT.

It was reported that the patients who received CBT made substantial clinical gains, while ERP produced short-term results compared to the CBT treatment. On one hand, this finding of poor maintenance of change with ERP confirms previous reports by Fairburn et al. (1995) and Thackwray et al. (1993). On the other hand, with this study as well as others, the clinical gains achieved using CBT were well maintained at one-year follow-up. The authors reported more recent and longer term investigations indicated that the clinical improvements achieved from CBT were maintained to at least five years following therapy. These results are promising, since BN tends to run a chronic course. One limitation identified in this examination, similar to that of Wilson et al. (1991), was the use of too many assessment instruments.

Jones et al. (1993) conducted an investigation that addressed two key questions concerning CBT for BN. The first was whether the effects of treatment resulted from specific interventions which characterized CBT or whether they resulted from therapeutic interventions which were common to many psychological treatments. The second question was whether a simplified and exclusive behavioral version of CBT would be as effective as the full treatment. The main

aim of the study was to assess the immediate effects of treatment based on CBT, BT, and IPT. Thirty-eight patients of the original seventy-five were suitable subjects. They were compared with respect to the duration of their eating disorder and the severity of their symptoms both before and after treatment. This was measured by the EDE (Cooper et al., 1987), body mass index, and the SCL-90 (Derogotis, 1977). Of the subsample, 12 (32%) received CBT, 13 received BT (34%), and 13 received IPT (34%).

The results of the study indicated that all three treatments had substantial beneficial effects on eating behavior and attitudes and on general psychiatric symptoms. It appeared that the non-specific properties (IPT) of psychological treatments had a substantial early (within the fourth week) effect on the eating behavior of subjects with BN. However, CBT and BT appeared to have an influence on eating behavior over and above the non-specific effects, in that improvement continued for a further period (up to the eighth week). This investigation gave no clues as to the mechanism of action of IPT. In addition, there was no evidence of the predicted delayed improvement in eating behavior and attitudes to shape and weight. Jones et al. reported this may have been because such changes are dependent upon improved interpersonal functioning and that this takes many months to be fully expressed. Therefore, the first weakness found in this study was the exclusion of unobtrusive measures of interpersonal functioning and attitudes to shape and weight. The second weakness was that some of the measures were relatively crude. The third weakness concerned the small subsample size, which increased the risk of Type II error (i.e. false-negative).

Fairburn et al. (1995) examined longer-term outcome of BN and the distal effects of three treatments. Those treatments were CBT, BT, and IPT. The participants had been former patients in two psychotherapy trials conducted in England in the 1980s. These trials were similar in design. Twenty-four patients in the first trial were recruited between 1982 and 1984, and they were randomized to one of two treatments. One was a form of CBT, the other a form of IPT.

Seventy-five patients in the second trial were recruited between 1985 and 1988. They were randomized to one of three treatments: CBT, BT, and IPT. Within the more recent examination, follow-up information was obtained on 91 patients. The mean age of the patients at follow-up was 29.6 years and the mean length of follow-up was 5.8 years. A majority of them were followed up four to six years. Demographic information was described. Thirty percent were single, 69% were married or living as married, and 1% was divorced. Seventy-one percent were employed, 9% were students, 15% were at home with children, and 4% were unemployed. One percent was declared unfit to work due to psychiatric illness. Measures used in this specific investigation were of two types, specific psychopathology and general psychopathology and social adjustment. The specific psychopathology measurements included the EDE (Cooper et al., 1987) and the DSM-IV (APA, 1994) diagnoses of eating disorder not otherwise specified (EDNOS). General psychopathology was measured by the BSI and social adjustment was measured by the Adult Personality Functioning Assessment (APFA)(Hill, Harrington, Fudge, Rutter, & Pickles, (1989). The number of patients assigned to each treatment was not discussed.

In regard to long-term outcome, those patients who received BT fared much worse than CBT and IPT. Most of them had a DSM-IV eating disorder, compared to a relatively small percentage of those who received CBT and IBT respectively. Fairburn et al. suggested that this difference was due to the large number of patients who had received BT and had met the criteria for EDNOS. Furthermore, BT appeared to have had a short-term effect, and those effects subsequently tended to deteriorate. The poor outcome of the patients who received BT resembled the outcomes reported in early descriptions of the disorder (APA, 1980; Russell, 1979) and the findings of Keller et al. (1992).

Two limitations of the study were also of note. The first limitation was that the length of follow-up varied. The second limitation applied to the comparison of the three forms of treatment, which involved a combination of data collected on two separate occasions. The treatment modalities used in the two previous trials were not identical. Within the next section, a summary of the findings presented will be discussed.

Summary of Findings

The primary aim of this investigation was to further examine the reported successes of CBT. Based on the findings, CBT seems to be both effective and successful. Therefore, it appears that CBT is the treatment of choice for women with BN. In comparison with BT, CBT produced longer-term effects. In comparison to antidepressant medication, CBT had similar effects in combination of desipramine and without it. In comparison to IPT, CBT again produced longer-term effects. However, some findings showed that CBT is not the treatment of choice for all women with BN. Within some investigations, subjects did not

respond to CBT. In addition, some of those who received CBT continued to binge and purge at follow-up. More specifically, some studies indicated the co-occurrence of personality disorders, particularly borderline personality, characterized a subgroup of individuals who were difficult to treat and do not respond to CBT. Overall, the presented findings must be taken cautiously, given the limitations of small representative samples, lack of comprehensive demographic information, over-usage of measurements, and lack of long-term therapy.

Implications

There are several implications regarding the success of CBT in the treatment of BN. These implications are based on the limitations evident in previous investigations. Perhaps the success of CBT may increase within studies that include women from diverse ethnic and social-economic backgrounds. As previously mentioned, BN has been reported to occur more often in industrialized countries including the U.S., Canada, Europe, Australia, Japan, New Zealand, and South Africa (APA, 1994). Future investigations may want to include women from these specific geographical areas. In addition, larger representative samples may also produce larger effects. Since it has been reported that BN runs a chronic course, perhaps upcoming investigations need to consider assessing CBT in the long-term. Another recommendation is identical to that of Johnson et al. (1996). Based on their notion that eating disorders, in general, are like a spectrum of closely related conditions, future investigations need to "foster more specific assessments of core cognitive and behavioral features and their interrelationships"

(p. 473). So, rather than treating a diagnostic category such as BN, investigations should focus on more distinct cognitive and behavioral targets.

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